REMARKS

Introduction

Claims 1 – 7 were originally pending in this application. Claim 1 has been amended and claim 5 has been cancelled herein. Thus, claims 1 – 4 and 6 – 7 remain pending for consideration in this application. No new matter has been added.

Claim Rejections

In a January 2, 2004 Office Action, claims 1 – 4 were finally rejected under 35 U.S.C. § 102 as being unpatentable over U.S. Patent No. 3,116,510 issued to Oishei et al., claims 1 – 4 were finally rejected under 35 U.S.C. § 102 as being unpatentable over U.S. Patent No. 4,047,480 issued to Vassiliou, and claims 1 – 3 and 5 – 7 were finally rejected under 35 U.S.C. § 102 as being unpatentable over German Patent No. 2,311,293 to Kohler.

Accordingly, independent claim 1 has been amended to describe an invention that includes structure that is neither disclosed nor suggested by the Oishei et al., Vassiliou, or Kohler references. Remaining claims 2 – 4 and 6 – 7 are each ultimately dependent upon independent claim 1 and include further perfecting limitations. Applicant respectfully requests reconsideration and withdrawal of the final rejections in view of the amendment made to this application by way of this Preliminary Amendment as explained in greater detail below.

The Oishei et al. '510 Patent

The Oishei et al. '510 patent discloses a windscreen wiper that includes primary lever 17, a secondary lever 20 pivotally mounted beneath the primary lever 17, and a yoke 22 mounted beneath the secondary lever 20. A channel 24, 60 is attached to the primary lever 17, secondary lever 20, and

yoke 22 via a plurality of U-shaped guides 30, 33, 35, and 37, and a channel holder 28 is supported by the channel 24, 60. A wiper blade 43 is supported within the channel holder 28. The Oishei et al. '510 device is a conventional "tournament style" windscreen wiper, and as such, wiping efficacy depends primarily on proper force transfer from levers 17, 20 and yoke 22 to the blade 43. Accordingly, it is advantageous for the size of the channel 24, 60 to conform to that of the U-shaped guides 30, 33, 35, and 37 and the channel holder 28 such that the channel 24, 60 is firmly connected to those components. Thus, as shown, in Figures 9 and 11, the channels 24, 60 each have a constant thickness to thereby firmly attach to the U-shaped guides 30, 33, 35, 37 and channel holder 28.

The Examiner has characterized the channels 24, 60 as a "beam" for purposes of rejecting claims 1 – 4 of the present application, and characterized as such, the Oishei et al. '510 patent neither discloses nor suggests a beam with a varying thickness.

The Vassiliou '480 Patent

The Vassiliou '480 patent discloses a silk screen wiper that includes a blade 1 supported between two flat, resilient support strips 3. The support strips 3 are straight in the free state, and ends 4, 5 of the support strips 3 are deformed and project beyond the blade 1. As shown in Figure 5, when the ends 4, 5 contact the frame 6 of the silk-screen assembly, the support strips 3 bend to allow the blade 1 to reach so-called "far edges" of the screen for even distribution of ink. The support strips 3 disclosed and shown in Figures 1 – 4 have a constant thickness and an upper surface of a constant width such that the support strips 3 will bend evenly for reaching the "far edges." The Examiner has characterized the support strips 3 as "beams," and characterized as such, the Vassiliou '480 patent neither discloses nor suggests a unitary elongate curved beam with a varying thickness and an upper surface of a varying width.

The Kohler '293 Patent

The Kohler '293 patent discloses a windscreen wiper that includes a bow 10 with a partially U-shaped cross section. The bow 10 is operatively connected to a pair of spring rails 21 that are supported in the blade 22. More specifically, the bow 10 includes slots 27 formed in the inside surface of the inverted U-shaped bow 10, and the spring rails 21 are positioned longitudinally within the slots 27. Ends 17, 19 of the bow 10 project beyond the blade 22 and bend downward therefrom to inhibit the blade 22 from sliding out from the bow 10. One end 19 of the bow 10 includes slits 30 and a hinge 20 such that the end 19 can be pivoted away from the blade 22 to thereby allow selective removal of the blade 22 from the bow 10. Due to the slits 30, the bow 10 has a discontinuous upper surface. If the bow 10 is characterized as a "beam," the Kohler '293 patent neither discloses nor suggests a beam with a continuous upper surface.

The Windscreen Wiper of the Present Invention

The windscreen wiper of the present invention is directed toward a "beam blade style" windscreen wiper as opposed to a "tournament style" windscreen wiper. To this end, the windscreen wiper of the present invention as defined in amended independent claim 1 is directed toward a windscreen wiper with a unitary, elongate curved beam and a rubber blade mounted to the beam. The beam includes at least one end formation, which is deformed and projects beyond the blade. Claim 1 has been amended to incorporate the limitations of claim 5 (cancelled) to further define the beam as having a varying thickness and a continuous upper surface of a varying width. Support for this amendment can be seen in Figures 1 – 4. Accordingly, Applicant respectfully submits that no new matter has been added.

In operation, when the windscreen wiper of the present invention is positioned against a curved windscreen, the curved beam straightens slightly, thereby forcing the blade against the windscreen. The varying thickness and width of the beam allow the beam to deflect in such a way as to more effectively transfer force to the wiper blade for improved wiping capability. The continuous upper surface also allows for more effective force transfer and additionally increases the manufacturability of the beam.

The "tournament style" Oishei et al. wiper cannot achieve these advantages because deflection of the channel 24, 60 is not intended to transfer force to the blade 43. Likewise, the Vassiliou silk-screening wiper cannot achieve the advantages of the present invention because, as shown in Figure 5 of the Vassiliou reference, bending the support strips 3 does not force the blade 1 against the wiped surface. Similarly, the Kohler device cannot achieve these advantages because the end 19 of the bow 10 of the Kohler device opens away from the windscreen, and by forcing the blade 22 increasingly against a windscreen, the end 19 is more likely to inadvertently open about the hinge 20. Also, the Kohler wiper cannot achieve the advantage of the present invention because the slits 30 and hinge 20 increase manufacturing costs as compared to the unitary beam with the continuous upper surface of the present invention.

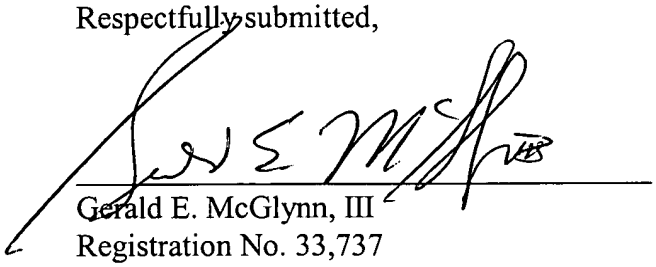
Conclusion

In view of the above, it is respectfully submitted that independent claim 1, as amended, recites structure that is not disclosed or suggested by the prior art and is patentably distinguishable from the subject matter of the Oishei et al., Vassiliou, and Kohler references discussed above. Claims 2 – 4 and 6 – 7 are all ultimately dependent upon independent claim 1 and add further perfecting limitations thereto. Accordingly, applicant respectfully submits that the present invention

has been adequately defined over the prior art of record in this case. Therefore, applicant respectfully solicits the allowance of the claims pending in this case.

The Examiner is encouraged to contact the undersigned attorney via telephone if he has any questions or additional comments concerning the patentability of these claims.

Respectfully submitted,



Gerald E. McGlynn, III
Registration No. 33,737
BLISS McGLYNN, P.C.
2075 W. Big Beaver, Suite 600
Troy, MI 48084
Phone: (248) 649-6090
Fax: (248) 649-6299
Email: gemcglynn@ipdirection.com

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